

FINAL OMB SUPPORTING STATEMENT FOR
NRC FORM 5
OCCUPATIONAL DOSE RECORD FOR A MONITORING PERIOD

(3150-0006)

(CLEARANCE REVISION)

Description of the Information Collection

The purpose of Title 10 of the *Code of Federal Regulations* Part 20 (10 CFR Part 20) is to establish "Standards for Protection Against Radiation." 10 CFR Part 20 provides requirements to persons licensed by the U.S. Nuclear Regulatory Commission (NRC) to receive, possess, use, transfer, or dispose of byproduct, source, or special nuclear material or to operate a production or utilization facility under parts 30 through 36, 39, 40, 50, 52, 60, 61, 63, 70, or 72. In addition, 10 CFR Part 20 applies to persons required to obtain a certificate of compliance or an approved compliance plan under 10 CFR Part 76.

On December 4, 2007, NRC published a *Federal Register* Notice regarding changes to 10 CFR Parts 19, 20 and 50 (72 FR 68043). Specific changes to 10 CFR Part 20 included a definition change to the total effective dose equivalent (TEDE), which allowed NRC licensees to use the effective dose equivalent (for external exposures) in place of the deep dose equivalent in determining the TEDE value. This change to 10 CFR Parts 19, 20 and 50 became effective on February 15, 2008.

Pursuant to 10 CFR 20.1502 licensees are required to monitor exposures to radiation and radioactive material at levels to demonstrate compliance with the occupational dose limits in 10 CFR 20.1201. Pursuant to 10 CFR 20.2104 licensees are required to determine the occupational radiation dose received by their employees, for whom monitoring was required under 10 CFR 20.1502, during the current year to demonstrate compliance with the occupational dose limits specified in 10 CFR 20.1201. Section 20.2206(a) specifies seven categories of licensees that are required to report occupational radiation dose information to NRC annually and section 20.2206(b) allows licensees to submit this information in paper format on NRC Form 5, "Occupational Dose Record for a Monitoring Period," or in an equivalent paper or electronic format.

NRC uses the occupational radiation dose information submitted by licensees as a metric in the NRC's Reactor Oversight Program to evaluate the effectiveness of licensees' radiation protection programs and provides input for inspections of licensees' facilities. The occupational radiation dose data is maintained in the NRC's Radiation Exposure Information and Reporting System (REIRS) database. The REIRS database is the NRC component of a nationwide radiation worker registry which implements the Federal Radiation Protection Guidance for Occupational Exposure approved by the President on January 20, 1987 (52 FR 2822-2834, January 27, 1987). An analysis of this data is published annually in NUREG-0713

“Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities” and is used by NRC, other government agencies, and licensees to develop dose trends at licensed facilities.

NRC encourages its licensees to reduce their paperwork burden by transmitting occupational radiation dose data electronically. Regulatory Guide 8.7, Revision 2 (November 2005), “Instructions for Recording and Reporting Occupational Radiation Dose Data,” provides licensees with guidance regarding the recommended format for both paper and electronic submission of occupational radiation dose data. In addition, software has been developed that is available from the NRC at no cost to licensees. Licensees with Internet access may download this software free of charge from the NRC’s REIRS Web Page at <http://www.reirs.com>. This software vastly reduces the burden of collecting and maintaining occupational radiation dose information and allows licensees to (1) analyze compiled radiation dose data to improve their radiation protection programs, (2) produce electronic equivalents of NRC Form 5, and (3) upload this information to a disk for submittal to the NRC.

A. JUSTIFICATION

1. Need for and Practical Utility of the Information Collection

10 CFR 20.2206 requires seven categories of licensees to submit occupational radiation dose information either on a paper copy of NRC Form 5, an equivalent paper copy of NRC Form 5, or an electronic equivalent to NRC Form 5, to NRC annually for each individual monitored pursuant to 10 CFR 20.1502.

2. Agency Use of Information

NRC compiles and analyzes occupational radiation dose information to assess the effectiveness of licensees’ radiation protection programs and uses this information for planning inspections at licensee’s facilities. NRC also uses this information to ensure that licensees are complying with the appropriate regulations to protect worker and public health and safety. In addition, NRC publishes NUREG-0713, “Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities,” annually, to provide the public and other agency stakeholders with information regarding routine occupational radiation exposures to radiation and radioactive material that occur in connection with certain NRC-licensed activities.

3. Reduction of Burden Through Information Technology

There are no legal obstacles to reducing the burden associated with this information collection. The NRC encourages respondents to use information technology when it would be beneficial to them. NRC issued a regulation on October 10, 2003 (68 FR 58791), consistent with the Government Paperwork Elimination Act, which allows its licensees, vendors, applicants, and members of the public the option to make submissions electronically via CD-ROM, e-mail, special Web-based interface, or other means. It is estimated that approximately 60% of the potential responses are filed electronically.

Regulatory Guide 8.7, Revision 2, (November 2005), "Instructions for Recording and Reporting Occupational Radiation Dose Data," provides licensees with guidance regarding the recommended format for both paper and electronic submission of occupational radiation dose data. The electronic reporting guidance provided in this document is intended to reduce the reporting burden on licensees.

Section 20.2206(c) requires licensees to submit their occupational radiation dose data, covering the preceding year, to NRC, on or before April 30 of each year. For the 2008 calendar year, licensees were required to submit their occupational radiation dose data by April 30, 2009. As of June 2009, 194 licensees submitted annual reports on occupational radiation exposure for the 2008 calendar year, totaling 187,170 records. Of the 194 licensees, 104 were commercial nuclear power reactor licensees and 90 were materials licensees. All 104 commercial nuclear power reactor licensees submitted their occupational radiation dose data electronically, either using the Radiation Exposure Management Information Transmittal (REMIT) software or another compatible electronic format. A total of 174,393 records were received from the 104 commercial nuclear power reactor licensees. Of the 90 materials licensees, 21 electronically submitted their occupational radiation exposure data, via the electronic methods stated above, and 69 submitted their data on paper. The paper records submitted were either NRC Form 5 or an equivalent paper format. A total of 9,762 records were received by the 21 materials licensees that submitted their data electronically and 3,015 records were received from the 69 materials licensees that submitted their data on paper. In total, NRC received 184,155 electronic records and 3,015 paper records for the 2008 calendar year.

4. Effort to Identify Duplication and Use Similar Information

No sources of similar information are available. There is no duplication of requirements. NRC has in place an ongoing program to examine all information collections with the goal of eliminating all duplication and/or unnecessary information collections.

5. Effort to Reduce Small Business Burden

NRC's development and maintenance of the REMIT software is a direct effort to reduce the burden on small businesses. REMIT is also used by large businesses to help reduce their paperwork burden. NRC provides the REMIT software, at no cost, to all licensees (both small and large firms) to assist them in their recording, reporting, and maintenance of occupational radiation exposure data. In addition, Section 20.2206(c) specifies that licensees may submit this data via the REIRS Web page at <http://www.reirs.com>. It is not possible to further reduce the reporting burden on small businesses and still meet the objectives stated in A.1 above.

6. Consequences to Federal Program Activities if the Collection is Not Conducted or is Conducted Less Frequently

If the requirements of Section 20.2206(c) were not met by licensees, or if the collection was conducted less frequently than on an annual basis, NRC would not receive information about the radiation exposures received by occupational workers at NRC-licensed facilities. As previously mentioned, 10 CFR 20.2206 is the only regulation that requires licensees to submit occupational radiation exposure information to the NRC. NRC uses this information to ensure that occupational radiation workers are receiving occupational radiation doses that comply with the occupational dose limits in 10 CFR 20.1201. If the NRC did not require this information collection, the agency would not be able to communicate with its stakeholders on how licensees' radiation protection programs are working to ensure that radiation exposures to occupational workers, and to the public, are being kept as low as is reasonably achievable (ALARA).

In addition, the REIRS database and NUREG-0713 are the two tools used to identify occupational workers who work at multiple licensees throughout a calendar year and receive occupational radiation doses from multiple licensee facilities. For these types of occupational workers, also known as transient workers, it is important to know their annual occupational radiation doses and ensure that licensee's are instituting processes and practices to ensure that these types of workers do not exceed the regulatory occupational dose limits in 10 CFR 20.1201.

7. Circumstances Which Justify Variation from OMB Guidelines

Records associated with the NRC Form 5 must be retained for the life of the NRC license in accordance with Section 20.2106(f).

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements for this clearance package was published in the Federal Register on July 29, 2010 (75 FR 44816). No comments were received.

Due to the TEDE definition change, NRC plans to conduct several public meetings with stakeholders to receive input and feedback on this new definition and impacts, if any, to the use of Form 5. NRC held a public meeting on March 5, 2010 with the Nuclear Energy Institute to receive feedback on the current use of Form 5 and discussed the new TEDE definition. NEI informed NRC that, as an industry, electronic reporting of occupational radiation exposure data is very efficient and effective for licensees to maintain compliance with 10 CFR 20.2206. A summary of this meeting is publicly available and can be found in the Agencywide Documents Access and Management System, under ML100980124.

NRC made a presentation at the 29th Annual International Dosimetry and Records Symposium in June 2010, to provide information on the new TEDE definition and proposed options for revisions to Form 5. NRC hopes to gain additional insights from industry on making revisions to Form 5 for alignment with the new TEDE definition. In addition, during fall/winter 2010 NRC plans to hold another public meeting with industry for more discussions on revisions to Form 5. NRC expects to issue a revised Form 5 in late 2011.

9. Payment or Gifts to Respondents
Not applicable.

10. Confidentiality of Information

Confidential and proprietary information is protected in accordance with NRC regulations in 10 CFR 9.17(a) and 10 CFR 2.390(b).

11. Justification for Sensitive Questions

NRC Form 5 specifies the use of the individual's name, social security number or other unique identification, date of birth, and sex. This information is necessary to ensure the proper identification of the individual.

In accordance with Section 20.2106(d), Form 5 falls under privacy protection. Form 5 is protected from public disclosure because of the personal information this form requires to identify an individual.

12. Estimate of Annual Burden

Recordkeeping

10 CFR 20.2106 specifies the recordkeeping requirements, recordkeeping frequency, and privacy protection requirements for the licensees that are required to annually submit, either using NRC Form 5 or its equivalent paper or electronic format, occupational radiation exposure data pursuant to 10 CFR 20.2206. It is estimated that approximately 182,000 persons are annually monitored at licensees' facilities and generate approximately 187,170 records. Occupational workers that receive a radiation dose at more than one licensee generate more than one record. It is estimated that 0.33 hours of clerical time is needed to complete one individual's NRC Form 5, or its paper or electronic equivalent. The annual recordkeeping burden is approximately 61,766 hours (57,550 hours for reactor licensees + 4,216 hours for materials licensees) and 61,766 hours (187,170 records x 0.33 hours/record). The annual recordkeeping burden cost is approximately \$15,873,862 (61,766 hours x \$257/hour). (See Table 1)

Reporting

10 CFR 20.2206 specifies seven categories of licensees that are required to annually submit their occupational workers' radiation exposure data. It is estimated that approximately 35 hours is needed to prepare, review, authorize, and submit this information to NRC, using NRC Form 5 or its paper or electronic equivalent. This reduction in reporting burden is due to the electronic reporting method used by many licensees. As of June 2008, 104 commercial nuclear power reactor licensees and 90 materials licensees submitted occupational radiation exposure information to the NRC. The annual reporting burden to commercial nuclear power reactor licensees is 3,640 hours (104 licensees x 35 hours) and 3,150 hours (90 licensees x 35 hours) to materials licensees. The total reporting burden is 6,790 hours (3,640 hours + 3,150 hours). The reporting

burden cost is \$935,480 (3,640 hours x \$257/hour) to commercial nuclear power reactor licensees and \$809,550 (3,150 hours x \$257/hour) to materials licensees. The total reporting burden for the 194 licensees is \$1,745,030 (\$935,480 + \$809,550). (See Table 2)

TOTAL: The total burden costs for recordkeeping and reporting are 68,556 hours (61,190 hours for reactor licensees + 7,366 hours for materials licensees) at a cost of \$17,618,892 (\$15,725,830 for reactor licensees + \$1,893,062 for materials licensees).

13. Estimate of Other Additional Cost

In addition to the recordkeeping and reporting burdens, a storage burden is also associated with the information collection of occupational radiation exposure data. The quantity of records to be maintained and stored is roughly proportional to the recordkeeping burden. Based on the number of pages maintained for a typical clearance, records storage costs have been determined to be equal to 0.0004 times the recordkeeping burden cost. The storage cost for this clearance is estimated to be \$6,350 (61,766 hours x 0.0004 x \$257/hour).

14. Estimated Annualized Cost to the NRC

The NRC cost is incurred by inspectors reviewing the information on NRC Form 5, or its equivalent, and supporting records maintained by licensees. Annually, 260 hours of inspection time is spent reviewing such records, at an average of 2.5 hours for each of the 104 reactor sites. The annual cost for reactor inspections of Form 5, or its equivalent, is \$66,820 (260 x \$257/hour). While the number of reactor sites has been constant, at 104 sites, for the past several years, there are fluctuations in the number of materials licensees. This fluctuation is mainly due to an increase in the number of Agreement States. Agreement States are those States that have entered into formal agreements with NRC, pursuant to Section 274 of the Atomic Energy Act (AEA), to regulate certain quantities of AEA material at facilities located within their borders. At the end of 2008, there were 35 Agreement States. These 35 Agreement States have regulatory authority over approximately 18,500 materials licensees. However, NRC is responsible for conducting inspections of NRC Form 5, or its equivalent, and supporting records maintained by 3,744 materials licensees. It is estimated that approximately 1,872 hours of inspection time is spent reviewing such records at an average of 0.5 hours for each of the 3,744 materials licensees. The annual cost for materials inspections to review these forms is \$481,104 (1,872 hours x \$257/hour).

Annually the total inspection cost is approximately \$547,924 (\$66,820 for reactor inspections + \$481,104 for materials inspections) (See Table 3). These costs are fully recovered through fee assessments to NRC licensees pursuant to 10 CFR Parts 170 and 171.

15. Reasons for Change in Burden

The estimated burden has increased by 1,907 hours from the previous burden of

66,649 hours to 68,556 hours (61,766 hours recordkeeping + 6,790 hours reporting). This burden change is due to an increase in the number of monitored individuals at licensee facilities pursuant to 10 CFR 20.1501. The increase in the number of monitored individuals increases the number of records received by the NRC. In the previous clearance, NRC received 173,419 records. As of June 2008, NRC received 187,170 records (184,155 electronic records + 3,015 paper records). However, the professional cost per hour has increased from \$217/hr. to \$257/hr.

In addition, the number of responses has decreased from 173,419 to 4,042. This change is due to the correction to the calculation of these responses. In the previous clearance period, each record that was kept by a recordkeeper was counted as a response. Therefore, the number of responses was calculated as: the number of reporting responses plus the total number of records kept. In the current clearance, the calculation of responses has been corrected. Each recordkeeper has been counted as a single response, regardless of the number of records kept. Therefore, the number of responses is equal to the number of reporting responses plus the number of recordkeepers.

16. Publication for Statistical Use

NRC Form 5 is not published for statistical use.

17. Reason for Not Displaying the Expiration Date.

The requirement will be contained in a regulation. Amending the Code of Federal Regulations to display information that, in an annual publication, could become out of date would confuse the public.

18. Exceptions to the Certification Statement.

Not applicable.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Statistical methods are not employed in the collection of information.

TABLE 1: INFORMATION COLLECTION BURDEN ASSOCIATED WITH NRC FORM 5

NUMBER OF RECORDKEEPERS		NUMBER OF RECORDS/ RECORDKEEPER	NUMBER OF RECORDS	BURDEN HOURS/ RECORD	ANNUAL BURDEN HOURS	ANNUAL COST @ \$257/HOUR
Reactors	104	1676.86	174,393	0.33	57,550	\$14,790,350
Materials	3,744	3.413	12,777	0.33	4,216	\$1,083,512
Total	3,848		187,170		61,766	\$15,873,862

TABLE 2: REPORTING INFORMATION COLLECTION BURDEN ASSOCIATED WITH NRC FORM 5

		RESPONSES PER RESPONDENT	NUMBER OF RESPONSES	BURDEN PER RESPONSE	ANNUAL BURDEN HOURS	ANNUAL COST @ \$257/HOUR
Reactors	104	1	104	35	3,640	\$935,480
Materials	90	1	90	35	3,150	\$809,550
Total	194		194		6,790	\$1,745,030

Hours: 68,556 hours (6,790 reporting plus 61,766 recordkeeping)

Responses: 4,042 (194 reporting responses plus 3,848 recordkeepers)

Respondents: 194 (90 materials licensees plus 104 reactor licensees)

TABLE 3: ESTIMATED ANNUALIZED COST TO THE NRC FOR REVIEW OF REPORTS AND CONDUCT OF INSPECTIONS ASSOCIATED WITH NRC FORM 5

		STAFF HOURS PER LICENSEE	STAFF BURDEN HOURS	ANNUAL COST @ \$257/HOUR
Reactors	104	2.5	260	\$66,820
Materials	3,744	0.5	1,872	\$481,104
Totals	3,848		2,132	\$547,924